CONTRA COSTA
WATER DISTRICT

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May 30, 2008

Ms. Delores Brown, Chief
Office of Environmental Compliance
California Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236

Ms. Patti Idlof
Bureau of Reclamation
2800 Cottage Way, MP–150
Sacramento, CA 95825

Subject: Notice of Intent (April 15, 2008) and Notice of Preparation (March 17, 2008) of the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Bay Delta Conservation Plan (BDCP)

Dear Ms. Brown and Ms. Idlof:

Contra Costa Water District (CCWD) appreciates this opportunity to provide input in response to the Notice of Intent (NOI) and Notice of Preparation (NOP) of the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Bay Delta Conservation Plan (BDCP). CCWD supports the efforts of the BDCP to develop a Habitat Conservation Plan and a Natural Communities Conservation Plan to resolve many long-standing and mounting technical and policy issues regarding water quality, the ecosystem, and water supply reliability associated with the Bay-Delta.

As requested in the NOP and NOI, we hereby submit the enclosed comments on (1) the development of reasonable alternatives and (2) potential environmental impacts.

Additionally, as Attachment 1, I have included a copy of CCWD's March 24, 2008, comments to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service submitted in response to the first NOI (published January 24, 2008).

If you have any questions regarding CCWD's comments, please call me at (925) 688-8100.

Sincerely,

Greg Gartrell
Assistant General Manager

GG/DS:wec

Attachments:

1. Letter to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (March 24, 2008) submitted in response to the first NOI
2. CCWD Facilities and Operations
3. Letter to the State Water Resources Control Board (Feb 13, 2007) regarding relaxation of water quality standards and anti-degradation policies

cc: Ms. Lori Rinek, FWS
Ms. Rosalie del Rosario, NMFS

Contra Costa Water District (CCWD) provides the following comments in response to the Notice of Intent (NOI) and Notice of Preparation (NOP) for the Environmental Impact Report / Environmental Impact Statement (EIR/EIS) for the Bay Delta Conservation Plan (BDCP), concerning (1) the development of reasonable alternatives and (2) potential environmental impacts.

1. Development of Reasonable Alternatives

Alternatives in the EIR/EIS, should (1) consist of a comprehensive set of actions, including projects proposed during the Delta Vision process, (2) include a broad range of conveyance facility options to ensure that potential solutions with reduced impacts are not overlooked, and (3) incorporate interim and near-term actions.

1.1. Comprehensive Alternative Development

A number of proposals have been developed that do not require relocation of intakes to the north Delta, nor require construction of pipelines or canals. These alternatives, which have been presented to the Delta Vision Blue Ribbon Task Force, must be fully considered and evaluated or the document could be significantly and fatally flawed.

The NOP and NOI appear to have restricted the EIR/EIS to a limited set of solutions and alternatives that are likely to result in a fatally flawed plan and set of environmental documents. Failure to include alternatives that examine the benefits and impacts of increased flows or changed reservoir operations on the system appear to have been arbitrarily excluded in a way that appears to conflict with CEQA, the CEQA Guidelines, and NEPA. The adverse effects of reduced inflow to the Delta on Delta water quality (especially for drinking water uses) and fisheries are indisputable, yet the BDCP and the EIR/EIS have excluded alternatives that would meet the BDCP goals with potentially fewer impacts. Such exclusion is ultimately likely to result in a flawed environmental document and in vulnerability of any project decisions based on those documents.

Failure to consider the full range of reasonable alternatives will also affect the ability of lead agencies to approve and of responsible agencies to permit any projects, potentially resulting in delays and even failure of the process to meet its goals and schedule. The full range of reasonable alternatives that could feasibly attain all or most of the BDCP's basic objectives (including but not limited to those which could avoid and/or substantially lessen significant effects of the proposed action or actions) should be considered and evaluated.

1.2. Conveyance Facilities

The NOP indicates the EIR/EIS will analyze the impacts of new water conveyance infrastructure, including a "canal from the Sacramento River to the SWP Harvey O. Banks and the CVP C.W. Jones pumping plants near Tracy." Project alternatives should be developed to evaluate a broad range of conveyance capacity and configuration alternatives for this new facility, including but not limited to continued use of screened

south Delta diversions and modifications to channels, that will reduce fish impacts and improve water quality in the Central and South Delta.

A recent study[1] by the Department of Water Resources (DWR) indicates essentially no water supply benefit of a larger capacity facility diverting from the Sacramento River (10,000 or 15,000 cubic feet per second (cfs)) relative to a smaller capacity (5,000 cfs), when operated in a dual conveyance scenario. Although DWR did not examine anything below 5,000 cfs, an earlier evaluation by CCWD found that a 2,500 cfs facility would provide similar water supply. While meeting water supply reliability goals, the smaller capacity facility would leave more water in the river system to benefit the environment and maintain or improve water quality (see environmental impacts section below). Additionally, a smaller capacity facility could be constructed as a pipeline, which has a number of benefits over an open canal for each of the following issues:

Issue	Discussion
Seismic Stability	Since the conveyance facility will likely be crossing liquefiable soils in a seismically active region, seismic stability is a key issue. A pipeline, or a series of pipelines, would reduce risk of failure and shorten the time period the facility would be out-of-service for repair following a seismic failure in comparison to an open canal built of earthen levees. The existing Delta levees are currently being evaluated for risk to seismic events as part of the Delta Risk Management Strategy. Given the potential risk, it is difficult to justify building another 80 miles of levees associated with an unlined canal (the embankments) on top of liquefiable soils. Removal, replacement, and compaction of those soils, along with the cost of damage to existing drainages and associated land uses are likely to make a pipeline cost-effective compared to a properly designed canal capable of providing a secure water supply.
Maintenance	Plant growth within earthen canals inhibits flow and contributes to levee instability. However, the use of chemical herbicides is increasingly problematic due to regulatory constraints. Earthen canals leak, both into and out of the canal. Canal levees are also subject to erosion from wind waves. For certain storm events, the proposed canal alignments will have very long fetch, which would produce large wind waves within the canal, potentially causing significant erosion and

[1] California Department of Water Resources. 2008. An Initial Assessment of Dual Delta Water Conveyance.

	overtopping. Using rip-rap or other means to resist the action of wind waves will increase head losses along the canal, resulting in larger cross-sections and larger environmental impacts. Flooding of an island upon which a canal is constructed will subject the external canal levees to wave action, erosion and seepage. A levee break on a river near a canal will subject the canal to potential failure from the erosive forces of the floodwaters filling the island. Either situation will potentially disable all supplies through the canal for an extended period.
Physical Barrier	Canals, in general, create a migration corridor barrier for terrestrial species. Canals will sever many large tracts of agricultural land, and create severe drainage issues that will be very expensive to mitigate, if mitigation is at all possible.

CCWD's experience with a much smaller and shorter unlined canal has led CCWD to a decision to replace it with a pipeline. It is likely that a complete evaluation of the benefits of a small pipeline will show it to be a better alternative than an unlined, vulnerable canal. The EIR/EIS should include an alternative consisting of a screened intake and pipeline of approximately 2,000 to 3,000 cfs that would provide a reliable water supply primarily to urban areas now exporting water from the SWP and CVP export pumps near Tracy.

The EIR/EIS should examine fully screening all intakes, including the existing export intakes in the South Delta, with positive barrier fish screens for the export facilities. An examination of the salvage and fish population data shows strong correlations between winter salvage at the existing SWP facilities and reduced Fall Mid-Water Trawl population numbers for several species, including delta smelt. Screening these facilities to eliminate salvage and loss of adult delta smelt would improve fish population numbers and avoid a number of significant impacts associated with large canals.

1.3. Interim and Near-term Actions

The project alternatives should include interim and near-term actions that will allow critical issues to be addressed in a timely manner and lay a foundation for any long-term projects. Interim and near-term actions should be structured to include monitoring, thus expanding the scientific knowledge base of how various projects and management actions affect the environment. The following near-term actions are suggested for inclusion in the BDCP EIR/EIS.

Central Delta Pilot Projects

A number of potential pilot projects, with goals similar to the BDCP effort, have been proposed in the central Delta. The projects could provide protection to Delta fish by

impeding migration toward the south delta export facilities and improve water quality by reducing salinity intrusion in the fall. For instance, Metropolitan Water District of Southern California, a potentially regulated entity of the BDCP, has proposed various barrier configurations and operational modifications to provide for protection of delta smelt equivalent to the current interim operational restrictions mandated by Judge Oliver Wanger's December 2007 Decision[2], while reducing the water supply impacts and Delta water quality degradation resulting from implementation of the same Decision.

The BDCP should incorporate similar near-term actions, designed with an integral monitoring component to evaluate the effects of these barriers on multiple species of concern. Such projects could have immediate benefits and provide valuable data to assist in the operation of a dual conveyance facility. These potential immediate and near-term projects should be fully evaluated for implementation on an accelerated schedule, with project level documentation done separately on an accelerated schedule where necessary to allow immediate implementation.

Fish protection screens at Clifton Court Forebay

Implementation of pilot screens at or near Clifton Court Forebay could immediately reduce the loss of fish by predation in the Clifton Court Forebay and through salvage operations. Bond funding is already available for this project. This should be examined and environmental documentation completed on its own accelerated schedule. Information from such a pilot project will provide valuable information for the BDCP EIR/EIS.

Ecosystem Habitat Improvements

A number of ecosystem habitat improvements could be incorporated into the near-term actions of the BDCP. Many projects have been proposed and advanced to various levels, but have not yet produced environmental documents. By incorporating these habitat improvement projects into the BDCP EIR/EIS, the projects would contribute to species recovery in the near-term and provide additional information for subsequent habitat improvement projects. Examples of such projects include:

- Restoration of floodplain habitat and salmon migration through the Yolo Bypass;
- Brackish tidal marsh habitat development in Meins Landing in Suisun Marsh; and
- Freshwater tidal marsh habitat development on Decker Island or Liberty Island.

These projects can increase evapo-transpiration over existing levels, and can affect water supplies and water quality. Such projects should be included in the EIR/EIS, with full evaluation and disclosure of potential impacts, including impacts to water supplies and water quality so that adequate mitigation measures can be developed to reduce any impacts to insignificance.

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[2] NRDC et al. v. Kempthorne et al. (No. 05-CV-1207-OWW) Interim Remedy Order (Dec. 2007).

2. Potential Environmental Impacts to be addressed

CCWD comments on potential environmental impacts focus primarily on the quality of water necessary to support existing beneficial uses and the regulatory and legal framework that prohibits degradation of water quality and on water supplies. This section is concluded with some additional comments concerning the potential impacts of a new conveyance facility.

2.1. Water quality and water supply

Delta waters support multiple beneficial uses, and Delta water quality and water supply is protected by regulatory policies and federal and state laws. The project effect on Delta water quality and water supply must be fully evaluated and disclosed and mitigation measures proposed and adopted to reduce significant impacts to insignificance.

Fisheries Impacts

Scientific research concerning the current pelagic organism decline (POD) has highlighted the importance of water quality in ecosystem function. The basic conceptual model[3] for the POD identifies the following relevant physical and chemical water quality parameters that determine the habitat suitability: salinity, temperature, turbidity, contaminants, disease, and toxic algae.

The salinity gradient as indexed by the position of X2[4] is correlated to the abundance of numerous species[5], indicating that population levels increase as the salinity gradient is pushed seaward. Although the relationships between populations and X2 have changed with the introduction of the invasive clam *Corbula amurensis* and, more recently, for certain species during the POD years, freshwater flow continues to be an important requirement for a healthy ecosystem. Therefore, the EIR/EIS should analyze the impacts to X2, listing the average monthly value and maximum daily change in X2 from the baseline conditions.

Similarly, The Bay Institute has developed a Delta flow index that shows strong correlations to a composite Delta fish abundance index[6]. The Delta flow index should also be used to evaluate impacts of alternatives.

Additionally, analysis by CCWD shows that the abundance of juvenile delta smelt in summer (as measured by the Summer Townet Survey, TNS) is significantly correlated

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[3] Interagency Ecological Program for the San Francisco Estuary (IEP). January 2008. Pelagic Organism Decline Progress Report: 2007 Synthesis of Results. Available at http://www.science.calwater.ca.gov/pdf/workshops/POD/IEP_POD_2007_synthesis_report_031408.pdf.

[4] X2 is the distance from the Golden Gate to the location of the 2 psu isohaline measured near the bottom of the water column.

[5] Jassby, A. D., W. J. Kimmerer, S. G. Monismith, C. Armor, J. E. Cloern, T. M. Powell, J. R. Schubel, and T. J. Vendlinski. 1995. Isohaline position as a habitat indicator for estuarine populations. Ecological Applications 5: 272-289.

[6] The Bay Institute. June 19, 2007. Presentation to the State Water Resources Control Board: Recommendations to Improve Fishery Resources, Slow or Stop the Decline of Delta Smelt, and Improve Water Quality Conditions in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. Available at: http://www.waterrights.ca.gov/baydelta/docs/pelagicorganism/tbi_swanson_ppt_061907.pdf

with the salinity in the Western Delta during the previous fall, a finding that has been confirmed by peer review[7]. This relationship is strengthened further when the analysis is expanded to account for the number of adult delta smelt available to reproduce (as measured by the Fall Midwater Trawl survey, FMWT). A multiple regression analysis of fall salinity, FMWT, and TNS for the following summer yields one of the strongest predictors for delta smelt abundance.[8] The POD years appear as anomalies in this relationship likely due to the exceptionally low population levels and a significant stock-recruitment relationship.

This research is consistent with analysis of habitat environmental quality by the DWR[9], which found a long-term environmental quality decline for delta smelt characterized by increases in fall salinity and decreases in fall turbidity. The recent synthesis of POD research[10] suggests the decline in environmental quality has had "population-level consequences for delta smelt".

Due to this evidence that salinity is an important indicator of population abundance for a number of species, and fall salinity is particularly important for delta smelt, the EIR/EIS should assess the project's effect on salinity at multiple locations in Suisun Bay and within the Delta. The salinity regime under project conditions should be compared to the salinity regime under current conditions and compared to the observed salinity regime at different time periods in history (e.g. 1910's, 1960's, 1970's, 1980's). The impact of changes in salinity should be discussed in terms of the potential impact to the covered species resulting from direct changes to habitat environmental quality and resulting from indirect changes due to the likely effect on distribution of invasive species, such as the overbite clam *Corbula amurensis* and aquatic water weed *Egeria densa*, which could have a subsequent impact to fisheries.

In addition to salinity, the BDCP has the potential to change the residence times in the Delta in significant ways, thus impacting temperature, turbidity, and contaminant concentrations. Assumptions regarding contaminant loads from the San Joaquin River must be realistic and cover a range of future scenarios, and disclose the potential impacts of any long residence times in the South Delta that could adversely affect sensitive species.

Any assumptions regarding efficacy of existing contaminant source control programs must recognize the risk that if those programs do not meet targets then the project

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[7] Manly, Bryan F. J. 2006. Review of Analyses Presented at the Environmental Water Account Meeting, December 7-8, 2005.

[8] The Bay Institute, 2007. Petition to the State of California Fish and Game Commission and supporting information for listing the delta smelt (*Hypomesus transpacificus*) as an endangered species under the California Endangered Species Act. Available online at: http://www.bay.org/delta.smelt.petition.pdf. Equation 3 ($p = 0.004$; $p<0.05$ is significant).

[9] Feyrer, F., M. Nobriga, and T. Sommer. 2007. Multi-decadal trends for three declining fish species: habitat patterns and mechanisms in the San Francisco Estuary, California, U.S.A. Canadian Journal of Fisheries and Aquatic Sciences 64:723-734

[10] Interagency Ecological Program for the San Francisco Estuary (IEP). Pelagic Organism Decline Progress Report: 2007 Synthesis of Results. January 2008. Available at http://www.science.calwater.ca.gov/pdf/workshops/POD/IEP_POD_2007_synthesis_report_031408.pdf.

analysis may be fatally flawed, and may fail to meet conservation goals. Therefore, the project should analyze impacts of contaminant residence times (such as selenium) at current and future levels, without always assuming the contaminant is removed by other projects.

Drinking Water Impacts

CCWD has relied on the Delta as a drinking water source since 1940 (see Attachment 2). Delta water is subject to large variations in salinity and mineral concentrations, which may be altered by project operations.

The EIR/EIS should analyze the environmental impacts on chloride, bromide, and organic carbon concentrations at all existing and planned drinking water intakes in the Delta and provide for mitigation where appropriate. Bromide and organic carbon are precursors that can result in production of bromate, trihalomethanes, and other disinfection byproducts with potential public health impacts.

Regulatory and Legal Constraints

A recent report by DWR prepared for the Delta Vision Blue Ribbon Task Force indicates the BDCP Steering Committee may propose relaxing one or more water quality standards.[11] However, numerous regulatory policies and federal and state laws are intended to prevent degradation of water quality. This section is only a brief summary of some relevant regulatory and legal constraints.

CCWD has observed that federal and state anti-degradation policies seriously constrain, if not outright prohibit, the relaxation of water quality standards. At the request of the State Water Resources Control Board, CCWD prepared a letter summarizing the legal obstacles to relaxation of the southern Delta salinity standards, which is applicable to the relaxation of any water quality standards. This February 13, 2007 letter is enclosed and herein incorporated into CCWD's scoping comments (see Attachment 3).

Regardless of action by the State Water Resources Control Board, federal law (P.L. 99-546) requires that the CVP be operated to meet water quality standards at the intake of the Contra Costa Canal on Rock Slough, as established in 1978 in Water Right Decision 1485.

> "The Secretary is further directed to operate the Central Valley Project, in conjunction with the State Water project, so that water supplied at the intake of the Contra Costa Canal is of a quality equal to the water quality standards contained in the Water Right Decision 1485 of the State of California Water Resources Control Board, dated August 16, 1978, except under drought emergency water conditions pursuant to a declaration by the Governor of California. Nothing in

[11] California Department of Water Resources. 2008. An Initial Assessment of Dual Delta Water Conveyance. p. 34.

> the previous sentence shall authorize or require the relocation of the Contra Costa Canal intake." [12]

Furthermore, the Delta Protection Act requires that substituting a water supply in lieu of meeting the required salinity and water supply requirements of Delta water users be done without imposition of any financial burden on said Delta water users.

> "If it is determined to be in the public interest to provide a substitute water supply to the users in said Delta in lieu of that which would be provided as a result of salinity control no added financial burden shall be placed upon said Delta water users solely by virtue of such substitution."[13]

Any proposals to change current water quality standards must be thoroughly evaluated and the impacts on all beneficial uses of Delta water must be disclosed.

2.2. Direct fish mortality due to entrainment

Previous research[14] showed correlations between winter exports and salvage levels at the export pumps, although the authors used Old and Middle River flows as a surrogate for the effect of export pumping. More recent work by CCWD confirms a stronger correlation between winter salvage at the export pumps and the quantity: exports minus one-half of the San Joaquin River flow. CCWD has also found that winter exports, as well as winter salvage at the SWP intake, are both strongly correlated with subsequent Fall Mid Water Trawl indices (increased salvage correlates with decreased FMWT).

Inasmuch as exports and San Joaquin flow are independent (physically and mathematically) variables[15], impacts should be analyzed against unscreened export levels and San Joaquin River flows. Furthermore, the plan should examine the benefits of installing positive barrier fish screens on reducing salvage and potentially increasing FMWT indices, and their benefits on through-Delta flows, fisheries and water quality levels. The EIR/EIS should examine using positive barrier fish screens on all export facilities.

2.3. Additional potential impacts associated with proposed new conveyance facilities

The EIR/EIS should fully evaluate and disclose potential impacts, and propose mitigation measures where appropriate, of new conveyance facilities, including, but not limited to, the following:

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[12] Public Law 99-546, enacted October 27, 1986. This Federal legislation approved the Coordinated Operations Agreement between the Bureau of Reclamation and the Department of Water Resources.
[13] California Water Code, Section 12202.
[14] Smith, P., J. Simi, C. Ruhl, and J. Donovan. October 24, 2006. Presentation at CALFED Science Conference. Hydrodynamic Influence on Historical Patterns in Delta Smelt Salvage.
[15] Conversely, Old and Middle River flows are dependent variables and influenced by a number of factors totally unrelated to salvage at the export pumps.

Landscape and Drainage Obstruction

The canal will sever property, disrupt island drainage, and create a barrier to migration corridors. Additionally, the existing irrigation and drainage ditches that the canal will sever may be considered as habitat for various special status species. The EIR/EIS should fully evaluate and disclose these potential impacts.

Water flows

New facilities may alter flows in the Delta, and could disrupt aquatic migration corridors for resident and migrating fish. All impacts of changed flows must be thoroughly evaluated and disclosed.

Bypass flows near intakes are important to adequately protect fisheries. At the same time, relocating existing intakes and diverting water at new locations may limit diversion of flows that are needed for bypass flows or preclude diversion of flows that come from other parts of the system and are not available at the new intakes. Consequently, there may be a reduction in supplies available for export while, at the same time, those changes result in water quality degradation in other areas of the Delta. These potential impacts should be fully evaluated and disclosed.

Sediment and Nutrient Load Reduction

By diverting a large fraction of the flow on the Sacramento River, the canal will remove a similar fraction of the sediment and nutrient load, potentially effecting turbidity and nutrients within the Delta. As discussed above, turbidity has been identified as an important factor in the environmental quality for delta smelt. Any changes to turbidity and nutrients should be fully evaluated and disclosed, with proposed mitigation measures, where appropriate.

Flood Risk

An unlined canal will create new flood risks. An unlined canal crossing liquefiable soils will be subject to failure in seismic events and allow disruption of vital water supplies for long periods. The EIR/EIS must fully evaluate and disclose these impacts of using an unlined canal for transport of water supplies.

Operation and Maintenance practices

Since the NOP indicates operation and maintenance of the proposed facilities will be a covered action, the EIR/EIS must evaluate the impacts associated with anticipated operation and maintenance activities, including:

- aquatic weed management and the potential use of herbicides or physical clearing of vegetation that will be necessary along, and in, any canal.
- levee maintenance, and
- facility security.

The potential impact of maintenance activities on the habitat within the canal as well as downstream beneficial uses, such as recreational use in reservoirs, agricultural irrigation, and drinking water must be considered.

Attachment 1

CONTRA COSTA
WATER DISTRICT

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March 24, 2008

National Marine Fisheries Service
650 Capitol Mall
Suite 8–300
Sacramento, California 95819

Attn: Rosalie del Rosario

Fish and Wildlife Service
Conservation Planning and Recovery Division
Sacramento Fish and Wildlife Office
2800 Cottage Way, W–2605
Sacramento, California 95825

Attn: Lori Rinek, Chief

Subject: BDCP Notice of Intent, Issued January 24, 2008

Dear Ms. del Rosario and Ms. Rinek:

Contra Costa Water District (CCWD) appreciates this opportunity to comment on the Notice of Intent (NOI) to Conduct Public Scoping and Prepare an Environmental Impact Report/Environmental Impact Statement (EIR/EIS) Regarding the Bay Delta Conservation Plan (BDCP) for the Sacramento-San Joaquin Delta, California. We offer the following comments:

First, the NOI should be corrected to accurately reflect participation and regulation. Although CCWD is actively participating in the BDCP planning process as an interested party, CCWD is not a Potentially Regulated Entity (PRE). CCWD operations are governed by independent biological opinions.

Second, the EIR/EIS must fully analyze and disclose project impacts concerning issues that have been identified as factors in the recent pelagic organism decline in the Delta, including unscreened water diversions, invasive species, and toxicity.

- Positive barrier fish screens should be considered at water intake locations covered by the proposed project. CCWD installed a positive barrier fish screen over ten years ago at our intake on Old River; monitoring has proven this fish screen is highly effective at preventing entrainment.

- Growth of invasive species, such as the overbite clam *Corbula amurensis* and aquatic water weed *Egeria densa*, may be impacted by salinity, temperature, and turbidity. The effect of the proposed project on these water quality parameters should be fully explored and discussed in the context of the effect on invasive species

distribution and subsequent impact to fisheries.

- Project conveyance options may alter hydrodynamics within the Delta and lead to accumulation of contaminants such as selenium, potentially increasing toxicity. If the EIR/EIS assumes contaminant levels are controlled by other mechanisms, those mechanisms must be a pre-condition for implementation of the proposed project.

Third, the EIR/EIS should evaluate a full range of conveyance alternatives. For instance, the peripheral aqueduct described in the BDCP Conservation Strategy Options Evaluation Report (dated September 17, 2007) appears to be the same for both Option 3 (Dual Conveyance) and Option 4 (Peripheral Aqueduct). The EIR/EIS should analyze a wider variety of parameters for this facility, evaluating lower conveyance capacity and alternative configurations. Preliminary modeling indicates a 2,500 cfs peripheral pipeline, operated in combination with through Delta conveyance, will meet the water supply goals of the BDCP. A smaller conveyance pipeline alternative has the additional benefit of better seismic stability than an open canal, which would have the same vulnerabilities as existing Delta levees.

Finally, CCWD is particularly concerned about the impacts to drinking water quality. The EIR/EIS should analyze the environmental impacts on chloride, bromide, and organic carbon concentrations at all existing and planned drinking water intakes in the Delta and provide for mitigation where appropriate. Bromide and organic carbon are precursors that can result in production of bromate, trihalomethanes, and other disinfection byproducts with potential public health impacts.

If you have any questions regarding CCWD's comments, please call me at (925) 688-8100.

Sincerely,

Greg Gartrell
Assistant General Manager

LO/DS

Additional Background Information Regarding
Contra Costa Water District Facilities and Operations

The Contra Costa Water District (CCWD) serves water to approximately 550,000 people throughout north, central and eastern Contra Costa County. Formed in 1936 to provide water for irrigation and industry, CCWD is now one of the largest urban water districts in California and a leader in drinking-water treatment technology and source water protection. CCWD's customers also include 10 major industries, and 12 smaller industries and businesses. The mission of the Contra Costa Water District is to strategically provide a reliable supply of high quality water at the lowest cost possible, in an environmentally responsible manner.

CCWD operates untreated water distribution facilities, water treatment plants, and treated water distribution facilities. CCWD provides retail treated water service to the Cities of Clayton, Clyde, Concord, Pacheco, Port Costa and parts of Martinez, Pleasant Hill and Walnut Creek, provides wholesale treated water to Diablo Water District and the Cities of Antioch and Brentwood, and, under an agreement, provides treated water to the Golden State Water Company in Bay Point. CCWD operates two water treatment facilities, the 75 Million Gallons per Day (MGD) Bollman Water Treatment Plant in Concord and the 40 MGD Randall-Bold Water Treatment Plant in Oakley. The Bollman plant primarily serves CCWD's treated water customers in Central Costa Contra County, while the Randall-Bold plant primarily provides wholesale treated water to customers in Eastern Contra Costa County. CCWD's Multi-Purpose Pipeline, constructed in 2003, connects the two treatment plants, providing operational flexibility such that either plant can distribute to the entire service area. Both the Bollman and Randall-Bold Treatment Plants are designed to provide a high quality drinking water to the District's customers, using sedimentation, ozonation and granulated activated carbon filtration.

CCWD also sells untreated water to the cities of Antioch, Martinez, and Pittsburg, and the Golden State Water Company in Bay Point, as well as industrial and irrigation customers. Antioch, Martinez, Pittsburg and Golden State Water Company all have their own treatment plants and retail treated water distribution systems.

The 48-mile Contra Costa Canal and the Los Vaqueros Project (completed in 1998) make up CCWD's principal water supply and delivery system. CCWD diverts unregulated flows and regulated flows from storage releases from Shasta, Folsom, and Clair Engle reservoirs into the Sacramento River and storage releases from New Melones reservoir into the San Joaquin River as a contractor of the United States Bureau of Reclamation's (Reclamation) Central Valley Project (CVP). Under Water Service Contract I75r-3401A-LTR1 (executed May 10, 2005) with Reclamation, CCWD can divert and re-divert up to 195,000 acre-feet annually (AFA) of water from its Rock Slough and Old River intakes. Currently, CCWD uses between 125,000 and 140,000 AFA. CCWD can also divert up to 14,880 AFA of water from its Mallard Slough intake under its own water rights (Water Rights License No. 10514). Some CCWD customers have additional sources of water. The City of Antioch has a water right permit to divert water from the lower San Joaquin

River. Pittsburg, Brentwood, and Diablo Water District all have wells that can provide a portion of their needs.

CCWD has obtained water from the Delta since 1940. Delta water is subject to large variations in salinity and mineral concentrations. The Delta is also vulnerable to many anthropogenic and natural sources of water quality degradation. Degradation in water quality is objectionable to many CCWD customers, costly to all residential and industrial users, and a health risk for some individuals. Federal drinking water regulations impose stringent limits on disinfection by-products in treated water, making it difficult to achieve the required pathogen inactivation while minimizing disinfection by-product formation. Bromide and Total Organic Carbon (TOC) are the significant constituents in Delta water that affect CCWD's requirement to meet disinfection by- product standards. Currently, CCWD's primary means of ensuring that disinfection by-product standards are met in the treated water are to ensure that bromide and TOC levels in the source water from the Delta are maintained below certain levels. Chlorides are monitored as an indicator of bromide levels, while TOC is monitored directly. CCWD adjusts operations daily to meet water quality goals in water delivered by CCWD to its customers. Bromide and TOC are not the only constituents of concern. Pathogens, nutrients, and other constituents contribute to the challenges of meeting regulations for treated water using Delta water as the source.

Contra Costa Water District is committed to supplying its customers with the highest quality water practicable and providing all reasonable protection of the supply from any known or potential source of contamination. CCWD Resolution No. 88-45 states in part that:

> "CCWD is committed to reducing the concentration of sodium and chloride in the District's water, thereby reducing household and landscape irrigation concerns and industrial and manufacturing costs caused by the fluctuating sodium and chloride level of CCWD's Delta source."

CCWD's Board of Directors has adopted water quality objectives for water distributed within its service area. The acceptable concentration level for chloride is established at 65 milligrams per Liter (mg/L).

The Los Vaqueros Project provides the District with the operational flexibility to meet these water quality goals and improves the reliability of emergency water supply available to CCWD. Approved by the voter-constituents of CCWD in 1988 and completed in January 1998, the Los Vaqueros Project consists of a reservoir with 100,000 acre-feet of storage, a new point of diversion at Old River, south of the Highway 4 crossing, which operates in conjunction with the Rock Slough and Mallard Slough intakes, plus associated water conveyance and delivery facilities, pumping plants, and other facilities. Diversion from the Old River intake for delivery to CCWD's service area began in the summer of 1997. The first filling of Los Vaqueros Reservoir to 100,000 acre-feet was completed on January 28, 1999.

Under State Water Resources Control Board Decision 1629 (June 2, 1994), CCWD holds water rights to divert and store water for beneficial uses, defined in Water Rights Permits No. 20749 and 20750 that provide for filling Los Vaqueros Reservoir from the new intake at Old River and diversion and storage of the water of Kellogg Creek. These rights are in addition to the contractual rights to divert and store water furnished through the CVP. Up to 95,850 AFA may be diverted for storage from November 1 of each year to June 30 of the succeeding year under Water Rights Permit No. 20749.

A key to successful performance of the Los Vaqueros Project is the District's ability to fill the reservoir from Old River with high quality water at times when it is available, typically late winter through early summer, and to use that water for blending when salinity at the District's Delta intakes exceeds the 65 mg/L chloride goal, generally late summer through early winter. Any increase in Delta salinity caused by new upstream diversion projects or increased exports in the South Delta will increase the demand on blending water from the Reservoir and affect the availability of high quality water for refilling. The District and its 550,000 customers will be impacted through higher pumping costs to replace the extra blending water that is released and through the health effects, increased corrosion, and additional treatment costs of delivering higher salinity water. This also reduces the water supply available to CCWD in the reservoir in case of an emergency, thereby eroding the $450 million investment CCWD's customers have made in the Los Vaqueros Project.

CCWD is currently constructing its Alternative Intake Project (AIP), a water quality project that will enable the District to divert higher quality water from Victoria Canal, when it is available, reducing diversions at the Rock Slough intake. CCWD would operate the new intake and pipeline together with its existing facilities to better meet the goal of delivering water with chloride concentrations of 65 mg/L or less. The choice of which intakes to use at a given time would be based in large part upon salinity; salinity at the Victoria Canal intake site is, at times, lower than salinity at the existing intakes. Similar to the Old River intake, the new intake on Victoria Canal will have state-of-the-art positive barrier fish screens to prevent entrainment. In addition, the new Victoria Canal intake will make it possible to shift some pumping from the unscreened Rock Slough Intake to the screened Old River and Victoria Canal intakes and to shift the timing of some diversions away from the sensitive fish periods, for an increased benefit to Delta fisheries.

Attachment 3

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(1913-2003)

February 13, 2007

Ms. Gita Kapahi, Chief
Bay Delta/Special Projects Unit
State Water Resources Control Board
P.O. Box 2000
Sacramento, CA 95812-2000

Re: ***Consideration of the Southern Delta Water Quality Objectives for Salinity in the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary***

Dear Ms. Kapahi:

Contra Costa Water District (CCWD) appreciates the opportunity to provide this supplementary letter following up on the comments presented orally on January 19, 2007, the second day of the Workshop on the above subject.

As previously noted, CCWD does not support the relaxation of the southern Delta agricultural objectives. CCWD believes, first and foremost, that any additional studies that are to be undertaken concerning the southern Delta agricultural objectives should be coordinated with other studies currently on-going in the Delta and must evaluate the water quality impacts elsewhere in the Delta that would result from each proposed alternative to the water quality objective or implementation measures.

Second, CCWD observes that federal and state anti-degradation policies seriously constrain, if not outright prohibit, the relaxation of the southern Delta water quality objectives.

Third, CCWD cautions the Board not to accept the arguments presented by Kern County Water Agency that suggest that a philosophical construct such as "naturally occurring water quality" or "natural flow" as a limitation on water quality objectives or that the project's obligations are solely to mitigate adverse water quality impacts proximately caused by the projects.

1. **Although the scope of the Workshop is relatively narrow, the Board should coordinate its consideration of the Southern Delta Water Quality Objectives with other ongoing studies. and evaluate whether revisions in the Southern Delta Water Quality Objectives impact water quality elsewhere in the estuary.**

The current Workshop was noticed as a proceeding to "develop and manage a thorough study of studies of salinity issues in the southern Delta." CCWD agrees with Board staff that the evidence presented during periodic review – primarily during Issue 10 – did not provide a sufficient scientific or technical basis to relax these objectives and agrees with stakeholders who suggested that what is needed is "an independent scientific investigation (similar to the investigation on which the objectives are based) ... to review the issues raised." (Appendix 1 to . the Revised Draft Water Quality Control Plan dated November 29, 2006 approved by SWRCB Resolution No. 2006-98 last month, p. 71.)

If new studies are chartered, they should

- recognize that recirculation of salts occurs on the San Joaquin River, particularly under low river flow conditions, and suitably address the further concentration of salts that will occur if water higher in salinity is exported and subsequently returned

to the Delta via the San Joaquin River after consumptive use, with even higher salt loading;

- consider Best Management Practices such as reducing loading by reducing return flow quantities, by reducing salt concentrations in return flows, or both;
- evaluate relocation of agricultural drains in key areas of the southern Delta, particularly in channels with stagnant or near stagnant conditions, where significant water quality improvements may be achieved without simply re-directing impacts. [1]

Such studies should also be closely coordinated with existing regional efforts, not only those of the Central Valley and Delta Salinity Management Plan, the San Joaquin River Water Quality Management Group, and other similar efforts, to achieve a robust and comprehensive salinity management strategy, that considers multiple methods of implementation. CCWD supports those efforts as an effective way to improve water quality in the southern Delta. In this regard, CCWD recommends funding for the Westside Regional Drainage Plan.

Such studies should also be coordinated with the Pelagic Organism Decline studies – for, as set forth in the second attachment to CCWD's January 5, 2007 letter – there are indications that increased salinity may play a significant role in the declining fisheries.

Such studies must be coordinated with the information developed through the CALFED Water Quality Program and the Central Valley Drinking Water Policy. It is not hard to imagine that a relaxation of the southern Delta agricultural objectives would work at cross purposes with contemplated new water quality objectives for bromides, total organic carbon and other precursors of disinfection by products.

Furthermore, any studies conducted in connection with the possible degradation of the of the southern Delta agricultural objectives must, as a matter of both federal and state law, examine the impacts on other beneficial uses throughout the Delta.

The federal antidegradation policy – discussed at greater length under the next heading – specifically requires the Board to "assure water quality adequate to protect existing uses fully" "[i]n allowing ... degradation or lower water quality." (40 CFR § 131.12, subd. (a)(2).)

As the Supreme Court noted in a different context: [2]

> In setting standards, the State must comply with the following broad requirements: [¶] "Such standards shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter. Such standards shall be established *taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational* [*and other purposes.*]" *Ibid.* [¶] See also § 1251(a)(2).

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[1] In cooperation with dischargers, CCWD has successfully re-located an agricultural drain from Rock Slough and a municipal discharge near Old River, both of which resulted in immediate improvements in water quality at CCWD intakes.

[2] In a case involving a water quality certification (required by section 401 of the Clean Water Act for the approval of a hydropower project), the United States Supreme Court explained that "§ 401 of the Act requires States to provide a water quality certification before a federal license or permit can be issued for activities that may result in any discharge into intrastate navigable waters. 33 U.S.C. § 1341. .... The limitations included in the certification become a condition on any federal license." (*PUD No. 1 of Jefferson County v. Washington Dept. of Ecology* (1994) 511 U.S. 700, 707.)

(*PUD No. 1 of Jefferson County v. Washington Dept. of Ecology* (1994) 511 U.S. 700, 704-705 (emphasis added.)

Similarly, under state law, the state antidegradation policy currently embodied in SWRCB Resolution No. 68-16 – discussed in greater length under the next heading – provides for the maintenance of "existing high quality water ... until it has been demonstrated to the State that any change ... will not unreasonably affect present and anticipated beneficial use of such water...." The plain effect of this language is to require an examination of the effects on other beneficial uses within the Delta.

CCWD further asserts that, in order to provide the "hard look" at possible environmental effects that CEQA requires, even in the certified regulatory program context, such studies must review the impacts of relaxed objectives on salinity elsewhere in the Delta. As noted on pages 3 and 4 of its January 5, 2007 letter, CCWD believes certain modeling activities are necessary to properly review these impacts, and that the results of these modeling runs should include water quality impacts at the location of municipal intakes and other key long-term monitoring stations within the Delta, with discussion of the maximum and minimum daily values.

2. Federal and state anti-degradation policies seriously constrain, if not outright prohibit the relaxation of the Southern Delta Water Quality Objectives

As a matter of federal law, the State antidegradation policy must be interpreted – and implemented – in a manner consistent with the federal antidegradation policy, which prohibits degradation of water quality in "Outstanding National Resource Waters"(Tier III waters), or where water quality is "just adequate" (Tier I waters); the federal antidegradation policy only allows degradation of Tier II waters, waters "in which water quality exceeds that necessary to support propagation of fish, shellfish and wildlife and recreation in and on the water." Assuming that it can reasonably be concluded that Delta water quality "exceeds that necessary to support propagation of fish" – notwithstanding the growing body of evidence that higher fall salinities are closely associated with the rapid decline of the pelagic fishery in the Delta – the deferral antidegradation policy requires existing water quality to "be maintained and protected unless the State finds... that allowing lower water quality is necessary to accommodate important economic or social development *in the area in which the waters are located.*" (Emphasis added.) Although the "*area in which the waters are located*" in this particular proceeding could be construed to be the southern portion of the statutory Delta, the requirement that impacts on other beneficial uses be evaluated effectively mandates that the entire Delta (and areas immediately adjacent thereto) be deemed to be the "area in which the waters are located." Finally, the analysis of water quality impacts must look not only at the incremental effect of the relaxation of the objectives at issue but must also examine the cumulative impacts of other water-degrading activities.

a. Antidegradation policies were required before the NPDES system was adopted and were never intended to apply only to waste discharges.

It has long been a substantive requirement of federal law that the water quality standards of each state contain antidegradation provisions. In fact, these antidegradation provisions preceded the Clean Water Act, which first introduced the concept of permitting pollution through the National Pollution Discharge Elimination System upon its enactment in 1972:

> When the Clean Water Act was enacted in 1972, the water quality standards of all 50 States had antidegradation provisions. These provisions were required by federal law. See U.S. Dept. of Interior, Federal Water Pollution Control Administration, Compendium of Department of Interior Statements on Non-degradation of Interstate Waters 1-2 (Aug. 1968); see also Hines, *A Decade of Nondegradation Policy in Congress and the Courts: The Erratic Pursuit of Clean Air and Clean Water*, 62 IOWA L.REV. 643, 658-660 (1977). By providing in 1972 that existing state water quality standards would remain in force until revised, the Clean Water Act ensured that the States would continue their antidegradation programs. See 33 U.S.C. § 1313(a). EPA has consistently required that revised state standards incorporate an antidegradation policy. And, in 1987, Congress explicitly recognized the existence of an "antidegradation policy established under [§ 303]." § 1313(d)(4)(B).

(*PUD No. 1 of Jefferson County, supra,* 511 U.S. at 718.)

The California antidegradation provisions were adopted as SWRCB Resolution 68-16 on October 28, 1968, entitled "Statement of Policy with Respect to Maintaining High Quality of Waters in California." [3] The resolution begins by declaring that "it is the policy of the State that ... the waters of the State shall be so regulated as to achieve [the] *highest water quality consistent with maximum benefit* to the people of the State and shall be controlled so as to promote the peace, health, safety and welfare of the people of the State." [4] (State Board Resolution 68-16 (emphasis added).)

In this context, the State Board resolved that "[w]henever the existing quality of water is better than the quality established in policies [now objectives]..., such existing high quality *will be maintained* until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies." (SWRCB Res. 68-16, first resolved clause, item 1 (emphasis added).) Similarly, numbered item 2 – which, unlike item 1, is principally concerned with discharges – concludes by stating "the highest water quality consistent with maximum benefit to the people of the State will be maintained."

The following year, the Legislature enacted the Porter-Cologne Act, and therein provided the following further direction to the State Board: "the state must be prepared to exercise its full power and jurisdiction to protect the quality of waters in the state from degradation...." In Water Code section 13241, the Legislature reiterated that the "water quality objectives" established under the Porter-Cologne Act must "ensure the reasonable protection of beneficial uses," but "recognized that it *may* be possible for the quality of water to be changed to some degree without unreasonably affecting beneficial uses." (Emphasis added.)

In 1972, there were two significant developments in the law applicable to water quality. First, in April the Supreme Court ruled in *Illinois v. City of Milwaukee* (1972) 406 U.S. 91, 102 that "it is federal, not state, law that in the end controls the pollution of . . . navigable waters."

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3 The title of Resolution 68-16 is the antithesis of the sort of degradation under consideration.

4 The resolution attributes this policy to the Legislature, which the year before enacted Water Code section 174 stating its intention "to provide for consideration of water pollution and water quality, and availability of unappropriated water whenever ... water quality objectives are established."

Second, in October, Congress enacted the Federal Water Pollution Control Amendments of 1972, [5] which upon enactment of the 1977 amendments, became the Clean Water Act. Nine years later, the United States Supreme Court confirmed that the Clean Water Act supplanted the federal common law of nuisance. (*Middlesex County Sewerage Auth. v. Sea Clammers* (1981) 453 U.S. 1, 21-22.)

In 1983, the federal antidegradation policy was promulgated by the EPA as section 131.12 of title 40 of the Code of Federal Regulations. The federal antidegradation policy directs states to "develop and adopt a statewide antidegradation policy and identify the methods for implementing such policy ... consistent with the following:

> (1) Existing instream water uses and the level of water qualify necessary to protect the existing uses shall be maintained and protected.
>
> (2) Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected.... [6]
>
> (3) Where high quality waters constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected."

In 1987, Region 9 of the EPA issued a document entitled *Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12* to "provide[] ... guidance for the States of Region 9 on the development of procedures for implementing State anti degradation policies." (*Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12* (1987) p. 1) [7] Section 303(c) of the Clean Water Act (33 U.S.C. §1313) confirms that the EPA has the power to veto any relaxation of water quality standards in violation of the federal policy discussed in the text.

The *Region 9 Guidance* document identifies three types of water, each corresponding to the first three subdivisions of the federal antidegradation policy quoted above:

> Tier III waters, which have been designated as Outstanding National Resource Waters (40 CFR 131.12(a) (3)),
>
> Tier I waters, where the water quality is "just adequate to support the propagation of fish, shell fish and wildlife in and on the water,"
>
> Tier II waters, waters "in which water quality exceeds that necessary to support propagation of fish, shellfish and wildlife and recreation in and on the water."

(*Region 9 Guidance*, *supra*, p. 2.) The *Region 9 Guidance* document goes on to unequivocally state that "actions which would lower water quality in [either Tier I or Tier III] waters are prohibited." (*Region 9 Guidance*, *supra*, p. 4.)

It seems highly doubtful that it could reasonably be concluded in light of the difficulties

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5 As explained by the United States Supreme Court, the original Federal Water Pollution Control Act, which relied primarily upon state enforcement of water quality standards, "proved ineffective." (*Middlesex County Sewerage Auth. v. Sea Clammers* (1981) 453 U.S. 1, 11.)

6 As discussed below, there is a provision for allowing degradation of so-called "Tier 2" waters in limited circumstances.

7 This document will be cited as "*Region 9 Guidance.*"

encountered by Delta fisheries in the past few years that the waters of the Delta are Tier II waters "in which water quality exceeds that necessary to support propagation of fish, shellfish and wildlife and recreation in and on the water."

b. The Board is required to apply federal and state antidegradation policies in considering the Southern Delta Water Quality Objectives.

The Clean Water Act plainly requires the Board to apply the federal and state antidegradation policies when evaluating whether to replace a more stringent objective (the term "standard" is used in the Clean Water Act) with a less stringent one. [8] As the Supreme Court noted in the context of a water quality certification [9] required for the approval of a hydropower project:

> A 1987 amendment to the Clean Water Act makes clear that § 303 also contains an "antidegradation policy" – that is, a policy requiring that state standards be sufficient to maintain existing beneficial uses of navigable waters, preventing their further degradation. Specifically, the Act permits the revision of certain effluent limitations or water quality standards "only if such revision is subject to and consistent with the antidegradation policy established under this section." § 1313(d)(4)(B). Accordingly, EPA's regulations implementing the Act require that state water quality standards include "a statewide antidegradation policy" to ensure that "[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." 40 CFR § 131.12 (1993). At a minimum, state water quality standards must satisfy these conditions.

(*PUD No. 1 of Jefferson County v. Washington Dept. of Ecology* (1994) 511 U.S. 700, 705.) That case also makes clear that states must implement their antidegradation policies:

> EPA has promulgated regulations implementing § 303's antidegradation policy, a phrase that is not defined elsewhere in the Act. These regulations require States to "develop and adopt a statewide antidegradation policy and identify the methods for implementing such policy." 40 CFR § 131.12 (1993). These "implementation methods shall, at a minimum, be consistent with the ... [e]xisting instream water

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8 There has been discussion about the propriety of an agricultural objective that varies by water year type, perhaps being more lenient in drier years and more stringent in wetter years. CCWD's position is that the propriety of such an objective would depend upon the anticipated flows, pumping rates, the degree and timing of the changes, and how that all of these factors balance out. However, the Board needs to keep in mind that averaging water quality may not adequately protect the beneficial use. Averaging water quality does not work for drinking water quality or for the protection of fish and wildlife. Where people and fish are concerned, it is the months of poor quality water that is the problem. People drink water every day, dry year or wet year, and fish must live in the water. Studies suggest that it is the dry period, high salinity that is the problem for the pelagic fisheries that are now crashing.

9 As explained by the United States Supreme Court, "§ 401 of the Act requires States to provide a water quality certification before a federal license or permit can be issued for activities that may result in any discharge into intrastate navigable waters. 33 U.S.C. § 1341. .... The limitations included in the certification become a condition on any federal license." (*PUD No. 1 of Jefferson County v. Washington Dept. of Ecology* (1994) 511 U.S. 700, 707.)

> uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." *Ibid.* EPA has explained that under its antidegradation regulation, "no activity is allowable ... which could partially or completely eliminate any existing use." EPA, Questions and Answers on Antidegradation 3 (Aug. 1985). Thus, States must implement their antidegradation policy in a manner "consistent" with existing uses of the stream. .... The Solicitor General, representing EPA, asserts, Brief for United States as Amicus Curiae 18-21, and we agree, that the State's minimum stream flow condition is a proper application of the state and federal antidegradation regulations, as it ensures that an "existing instream water us[e]" will be "maintained and protected." 40 CFR § 131.12(a)(1) (1993).

(*PUD No. 1 of Jefferson County, supra,* 511 U.S. at 718-719.)

The *Region 9 Guidance* document explains the first step of any analysis of whether to relax water quality objectives as follows: "If the action could or will lower water quality, and the affected water is not a Tier I or Tier III water, then the steps to be followed to determine whether or not 40 CFR 131.12 is satisfied are described in the following sections of this guidance." (*Region 9 Guidance, supra*, p. 4.) [10]

The federal antidegradation policy is very specific about what the Board may lawfully consider in determining whether to allow the possible degradation of Tier II waters: "that quality [i.e., quality in excess of that "necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water "] shall be maintained and protected *unless the State finds ... that allowing lower water quality is* ***necessary*** *to accommodate important economic or social development* ***in the area in which the waters are located.***" (40 CFR § 131.12, subd. (a)(2) (emphasis added).) [11]

In the current context, "the area in which the waters are located" must, at a minimum, comprise the southern Delta area protected by the objectives at issue. Conversely, the phrase "the area in which the waters are located" does *not* encompass any of the areas to which water is exported. [12] Of course, as noted above the further condition upon the relaxation of objectives in

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10 The "sections" referenced in the quotation in the text describe 4 tasks in deciding whether to allow degradation of Tier II waters: "Task A – Identify Actions that Require Detailed Water Quality and Economic Impact Analyses; Task B – Determine that Lower Water Quality will Fully Protect Designated Uses; Task C – Determine That Lower Water Quality is Necessary to Accommodate Important Economic or Social Development in the Area in which the Waters are Located; and Task D – Complete Intergovernmental Coordination and Public Participation." (*Region 9 Guidance, supra*, pp. 5-12.)

11 The omitted phrase requires the Board to "full[y] satisf[y] the intergovernmental coordination and public participation provisions of the State's continuing planning process."

12 Of course, by law "the area in which the waters are located" includes the "area immediately adjacent [to the Delta] which can conveniently be supplied with water therefrom," which area is protected by the Watershed of Origin statutes and the Delta Protection Act. See e.g., Water Code §§ 11460 (projects are not allowed to deprive locals of the "prior right to ... the water reasonably required to adequately supply the beneficial needs of the ... area"), 12201 ("the maintenance of an adequate water supply in the Delta sufficient to maintain and expand agriculture, industry, urban, and recreational development in the Delta area ... is necessary to the peace, health, safety and welfare"), 12931 ("the Sacramento-San Joaquin Delta [vis-à-vis the State Water Project] shall be deemed to be within the watershed of the Sacramento River"); 12220 (defining the statutory Delta).)

Tier II waters – that "[i]n allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully." – effectively requires that the Board evaluate the water quality impacts of relaxation throughout the Delta. This means that – assuming that it properly concludes that the waters of the southern Delta are Tier II waters – that the Board must maintain the existing objectives "unless the State finds ... that allowing lower water quality is necessary to accommodate important economic or social development" in (and immediately adjacent to) the Delta.

Finally, as noted above, the antidegradation policy is not merely a federal regulation; it has been incorporated as a substantive requirement of the Clean Water Act. (*PUD No. 1 of Jefferson County*, supra, 511 U.S. at 705; *Region 9 Guidance, supra*, p. 1 ("Section 303(a) (4) of the Clean Water Act explicitly refers to satisfaction of the antidegradation requirements of 40 CFR 131.12 prior to taking various actions which would lower water quality.").)

c. The Board has previously recognized that the regional boards are required to apply federal and state antidegradation policies in considering relaxation of the Southern Delta Water Quality Objectives.

In Water Quality Order 86-17 [13] the Board described the process of applying the antidegradation policies as follows:

> The State Water Resources Control Board and the Environmental Protection Agency have adopted similar policies intended to protect the high quality of state and federal waters. The State Board has adopted Resolution No. 68-16, the "Statement of Policy with Respect to Maintaining High Quality of Waters in California," as part of state policy for water quality control. See Cal. Water Code §13140 et seq. Resolution No. 68-16 has also been adopted, as a general water quality objective, in all sixteen regional water quality control plans. The Environmental Protection Agency has adopted a federal anti degradation policy as part of the agency's water quality standards regulations. 40 C.F.R. §131.12. Before approving any reduction in water quality, or any activity that would result in a reduction in water quality, the Regional Board must first determine that the change in water quality would not be in violation of State Board Resolution No. 68-16 or the federal anti degradation policy. Because the Regional Board did not make the required determination, as part of waste discharge requirements permitting a significant increase in receiving water pollutant levels, the Regional Board's action was improper.

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13 SWRCB Order WQ 86-17 was cited in Order WRO 2004-0043-EXEC (addressing potential water quality degradation resulting from Joint Point of Diversion) for the following proposition: "The requirement in SWRCB Resolution No. 68-16 to maintain the existing high quality of water unless a change (l) is consistent with maximum benefit to the people of the state, (2) will not unreasonably affect the beneficial use of the water, and (3) will meet the water quality objectives is itself a water quality objective." (SWRCB Order WRO 2004-0043-EXEC, p. 7, fn. 6.)

State Board Resolution No. 68-16 requires that:

> " ... the existing quality of water ... will be maintained until it is demonstrated to the State that any change will be consistent with the maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of water and will not result in water quality less than that prescribed [by other applicable water quality objectives] .. "

In determining whether changes in water quality will be consistent with "the maximum benefit to the people of the State," the State and Regional Boards are guided by the policies of the Porter-Cologne Act. The Porter-Cologne Act evinces a policy of ensuring consistency with federal Clean Water Act requirements. To take maximum advantage of federal programs, and to avoid direct regulation by the Environmental Protection Agency of activities already subject to regulation by the State and Regional Boards, the state's standard setting and waste discharge control programs must ensure that, at a minimum, all applicable Clean Water Act requirements are satisfied. See Cal. Water Code §§ 13160, 13170, 13370; recommended Changes in Water Quality Control, Final Report of the Study Panel to the California State Water Resources Control Board, Study Project: Water Quality Control Program 31 (1969).

Clearly, it is in the maximum benefit of the people of the State that the State and Regional Boards ensure that the State's water quality programs are consistent with the federal antidegradation policy. The State and Regional Boards have routinely followed the federal antidegradation policy. See, e.g., State Water Resources Control Board, Lake Tahoe Basin Water Quality Plan 37 (1980).

[¶¶]

Where this test is applicable under federal law, State Board Resolution No. 68-16 incorporates this test in determining whether changes in water quality are consistent with the maximum benefit to the people of the State. [¶].... State Board Resolution No. 68-16 incorporates the test set forth in the federal antidegradation policy ... where the federal anti degradation policy is applicable. .... [¶] On its face, the federal anti degradation policy is applicable. It is clearly intended to apply to ... changes in water quality control plan objectives. See 40 C.F.R. §131.12; Environmental Protection Agency, Questions and Answers on: Antidegradation 2, 6. ....

(SWRCB Order WQ 86-17, 16-19.)

In 2004, the Board reiterated that the antidegradation policy is itself a water quality objective. (See Order 04-43, fn. 6 ("The requirement in SWRCB Resolution No. 68-16 to maintain the existing high quality of water ... is itself a water quality objective. (See SWRCB Order WQ 86-17 at 17 ['Resolution 68-16 has been adopted, as a general water quality objective, in all ... regional water quality control plans.'].)"

d. In examining the water quality impacts of the relaxation of the Southern Delta Water Quality Objectives, the federal antidegradation policy requires an examination of the cumulative impacts of other water-degrading activities.

The *Region 9 Guidance* document describes the necessary analysis as follows:

> Repeated or multiple small changes in water quality (such as those resulting from actions which do not require detailed analyses) can result in significant water quality degradation. To prevent such cumulative adverse impacts, a baseline of water quality must be established for each potentially affected water body, prior to allowing any action which would lower the quality of that water. This baseline should remain fixed unless some action improves water quality. At such time, the baseline should be adjusted accordingly.
>
> Proposed actions to lower water quality should then be evaluated with respect to the baseline and the resultant water quality change should be determined. This determination should include the cumulative impacts of all previous and proposed actions and reasonably foreseeable actions which would lower water quality below the established baseline.

(*Region 9 Guidance* document, *supra*, p. 6.)

3. **The opinions in the *State Water Resources Control Board cases* and in the *El Dorado Irrigation District* case do not limit the Board's discretion to either set water quality objectives that may exceed the quality naturally available or to impose on the projects salinity control in excess of what might be required to mitigate the project's adverse impacts.**

Kern County Water Agency would have this Board – in conducting an analysis of "the highest water quality which is reasonable" (Water Code § 13000) – instead set less stringent objectives because they are "capable ... of being fully met by imposing terms and conditions on water rights permits." This proposition is evidently based on a misreading of the lengthy opinion penned by Justice Robie in *State Water Resources Control Board cases* (2006) 136 Cal.App. 4th 674. [14]

Contrary to Kern County's apparent misreading, the opinion in *State Water Resources*

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14 In the *State Water Resources Control Board cases*, the State Water Contractors argued that the trial court's decision wrongly "rest[ed] on 'the assumption that water right decisions adopted by the Board must provide for full and immediate implementation of the water quality objectives set forth in any applicable water quality control plan.'" (*State Water Resources Control Board cases*, 136 Cal.App. 4th, at 729.) The appellate opinion expressly rejected the argument, concluding instead that "[t]he guiding principle is that the Board's power to act in a water rights proceeding commenced to implement a water quality control plan is constrained by the terms of the plan it is implementing." (*Ibid.*) The opinion noted in footnote 21 that "we see no reason the Board could not have commenced a regulatory proceeding to amend the 1995 Bay-Delta Plan to modify the flow objectives in the plan for the purpose of authorizing the San Joaquin River Agreement and the Vernalis Adaptive Management Plan" (ibid), and went on to conclude that "the Board cannot – as it attempted to do here – make a de facto amendment to a water quality objective in a water quality control plan by simply refusing to take the action that it has identified as necessary to achieve that objective" (*id.*, at 732).

Control Board cases confirmed the prior holding in *United States v. State Water Resources Control Bd.* ("*Racanelli*") (1986) 182 Cal.App.3d 82, which explained that in the proceedings leading up to D-1485, "'the Board compromised its important water quality role by defining its scope too narrowly in terms of enforceable water rights.' (*Id.* [*Racanelli,*] at p. 120....)" (*State Water Resources Control Board cases*, *supra*, at 699.) That is precisely what Kern County Water Agency is arguing here: that the Board should set objectives based on what can be enforced against the projects' water rights. As *Racanelli* definitively put it, "nothing in the federal act or California's Porter-Cologne Act allows the Board to limit the scope of its basin-planning function to such water quality standards as are enforceable under the Board's water rights authority. "(*Racanelli*, *supra*, 182 Cal.App.3d, at 120.) [15]

Kern County Water Agency's further argument that conditions on water rights cannot exceed the obligations of the water right holder to mitigate is likewise flatly contradicted by *Racanelli*. As *Racanelli* stated on pages 141 to 142:

> Under its reserved jurisdiction to modify the permits (§ 1394), the Board was authorized to impose upon the projects water quality standards at whatever level of protection the Board found reasonable (§ 13241), whether "without project" or greater. [footnote omitted] By the very nature of the reserved jurisdiction, the Board was empowered to impose such terms and conditions upon the project permits as would in its judgment best serve "the public interest." (§§ 1253, 1257, 1258; *Johnson Rancho County Water Dist. v. State Water Rights Board*, *supra*, 235 Cal.App.2d 863, 45 Cal. Rptr. 589; Bank of America v. State Water Resources Control Bd., supra, 42 Cal.App.3d 198, 212, 116 Cal.Rptr. 770.) ... Nothing in the statutory scheme limits the Board's supervisory authority over appropriation permits to provide a level of water quality protection which exceeds the quality afforded by water rights."

(*Racanelli*, *supra*, 182 Cal.App.3d, at 141-142.) As was noted in *State Water Resources Control Board cases (*quoting from *Racanelli*):

> "But as fresh water was increasingly diverted from the Delta for agricultural, industrial and municipal development, salinity intrusion intensified, particularly during the dry summer months and in years of low precipitation and runoff into the river systems. One of the major purposes of the projects was containment of maximum salinity intrusion into the Delta. By storing waters during periods of heavy flow and releasing water during times of low flow, the freshwater barrier could be maintained at a constant level." (*United States v. State Water Resources Control Bd.*, *supra*, 182 Cal.App.3d at p. 107, 227 Cal.Rptr. 161.)

(*State Water Resources Control Board cases*, *supra*, 136 Cal.App. 4th at 694.)

The reliance on the recent opinions in *El Dorado Irrigation District v. SWRCB* (2006) 142 Cal.App. 4th 937 and the *State Water Resources Control Board cases*, *supra*, for the proposition that "Delta water users ... do not have the right to demand that the [projects] provide water quality enhancements through stored water releases" is misplaced where the water is released to meet water quality objective, not for the purpose of direct diversion.

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15 In a subsequent portion of the opinion, the court stated, "at the risk of tedious repetition, we reiterate that the Board's obligation, when setting water quality standards, is not to protect water rights but to provide "reasonable protection of beneficial uses." (§ 13241.)" (*Racanelli*, *supra*, 182 Cal.App.3d, at 144.)

In *El Dorado Irrigation District*, the primary issue was whether Term 91 – requiring the El Dorado Irrigation District ("El Dorado") to bypass water when water was being released from storage by the projects to meet Delta water quality objectives – could lawfully be applied to El Dorado when it was not applied against users junior to its rights with a 1927 priority date. (*El Dorado Irrigation District, supra*, at 942-943.) The appellate court "agree[d] with the trial court that the Board abused its discretion when it included term No. 91 in El Dorado's permit without including that term in the licenses and permits of junior appropriators, because the imposition of term No. 91 in these circumstances subverted the rule of priority without adequate justification." (*El Dorado Irrigation District, supra*, at 972.)

The portion of the *El Dorado Irrigation District* opinion quoted in Kern County Water Agency's statement was in response to the trial court's additional ruling that "the preference in Water Code sections 11460 and 11128 for El Dorado's use of water within the watershed of origin to meet El Dorado's increasing development needs was intended to trump the Projects' use of that water-including previously stored water-for project operations outside the watershed." The appellate decision rejected that argument, ruling that "although El Dorado may be entitled to assert a priority under section 11460 over the Bureau and the Department to the diversion of water originating in the watershed of the South Fork American River, that priority does not extend to water the projects have properly diverted to storage at an earlier date. If El Dorado wants water properly stored by the projects, it must pay for it." (*Id* at 976.) This language makes clear that what was at issue was the direct diversion by El Dorado of the very water released from storage by the projects.

Similarly, the selective quotation from the opinion in the *State Water Resources Control Board* cases proves little. Immediately following the second sentence quoted by Kern County Water Agency, the court draws a distinction between water released for diversion by Delta users and water released for water quality purposes:

> Nothing in the Delta Protection Act purports to grant any kind of water right to any particular party. The Delta Protection Act does preclude the diversion of water from the Delta that is necessary for salinity control or to provide an adequate water supply for users within the Delta; however, it is for the Board to decide, in the exercise of its judgment, what level of salinity control should be provided and what is an adequate supply of water for users in the Delta.

(*Id.*, at 771-772.) Plainly, neither opinion is authority for the existence of an obligation of Delta users to pay for stored water release to meet water quality objectives, a proposition not considered in either case. (See *State Water Resources Control Board cases*, 136 Cal.App.4th at 758.)

As noted above, one of the key criticisms of the Board actions in adopted D-1485 as set forth in the *Racanelli* decision was that the Board confused its water quality and water right responsibilities. (*E.g.*, *Racanelli, supra*, 182 Cal.App.3d, at 116 (basing objectives on "water flows necessary to protect the existing water rights in the Delta against impairment by the projects ... is fundamentally defective"); at 117-118 ("the Board's ... approach to that task [taking action necessary to protect the consumptive uses (agricultural, industrial and municipal) in the Delta] was seriously flawed by equating its water quality planning function with protection of existing water rights"); at 118 "Board erroneously based its water quality objectives upon the unjustified premise that upstream users retained unlimited access to upstream waters, while the projects and Delta parties were entitled only to share the remaining water flows"); 119-120 ("combining the water quality and water rights functions in a single proceeding ... was unwise"

and "compromised [the Board's] important water quality role").)

Unlike the opinions in the *State Resources Control Board* cases and *El Dorado Irrigation District*, the *Racanelli* opinion squarely faced the question of whether compensation was required for water released to meet a water quality objective:

> The U.S. Bureau, together with the state and federal contractors, argued below that the Board had no authority to compel the projects to provide extra water in order to protect the quality of canal waters because the District has no vested water rights. Any additional water, it is argued, must be purchased by the District.
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> The trial court agreed and held the drinking water standards for the Contra Costa Canal invalid. The court reasoned that since the District had neither riparian, appropriative nor perfected watershed rights, the District was limited to its contractual rights, and it had "bargained away" its right to water of a specified quality.
>
> The question thus presented is troublesome. Yet, a careful analysis impels the conclusion that the court's basic premise – that water quality protection hinges on ownership of water rights – is faulty.
>
> As discussed earlier, in performing its planning function, the Board is authorized to establish water quality objectives which in its judgment will ensure "the reasonable protection of beneficial uses ···" (§ 13241, emphasis added), a concept embracing a wide spectrum of consumptive and nonconsumptive, instream uses. (§ 13050, subd. (f).) Thus, the Board's authority in setting water quality standards is not limited to the protection of water rights but extends to the protection of all beneficial uses from degradation of water quality, even if the resulting level of water quality exceeds that provided by water rights. Accordingly, we conclude that the Board acted within its broad water quality planning authority to set standards to protect municipal or domestic supplies.
>
> Enforcement of the standards, however, presents an entirely different issue. Succinctly stated, the question is whether the Board has authority to compel the projects to comply with such water quality standards. *The purpose of the trial court's ruling, it seems apparent, was not to invalidate the standards themselves but rather to deny the Board's attempt to compel compliance by the projects to supply salinity control water free of charge. We think the court's ruling was incorrect.*
>
> Under its reserved jurisdiction to modify the permits (§ 1394), the Board was authorized to impose upon the projects water quality standards *at whatever level of protection the Board found reasonable* (§ 13241), *whether "without project" or greater*. [footnote omitted.] By the very nature of the reserved jurisdiction, the Board was empowered to impose such terms and conditions upon the project permits as would in its judgment best serve "the public interest." (§§ 1253, 1257, 1258; *Johnson Rancho County Water Dist. v. State Water Rights Board*, *supra*, 235 Cal.App.2d 863, 45 Cal.Rptr. 589; *Bank of America v. State Water Resources Control Bd.*, *supra*, 42 Cal.App.3d 198, 212, 116 Cal.Rptr. 770.) While the scope of that duty requires consideration of the public benefits derived from the projects (§ 1256), it also requires that water quality needs be taken into account. (§§

> 1243.5, 1257, 1258, 13000.) *Nothing in the statutory scheme limits the Board's supervisory authority over appropriation permits to provide a level of water quality protection which exceeds the quality afforded by water rights.*

(*Racanelli, supra*, 186 Cal.App.3d, at 140-142 (emphasis added).)

Finally, the time has long past for reliance on the case of *Town of Antioch v. Williams Irrigation District* (1922) 188 Cal. 451 for the proposition that a Delta user is bound to accept whatever level of salinity intrusion that may result from upstream diversions is wholly misplaced. Since 1922, the State adopted a constitutional prohibition on unreasonable use, which arguably is triggered now if not enough water flows down through the Delta into the Bay, the two massive water projects were constructed, each with a primary purpose of controlling the very same salinity intrusion of which the Town of Antioch spoke, the Clean Water Act was adopted to protect and enhance water quality as a national objective, Porter Cologne was enacted to protect and enhance water quality as a state objective, and the state and federal Endangered Species Acts were adopted, which have radically affected how the projects and other diverters operate. [16]

In conclusion, no longer is a reasonable argument available that water quality protection is constrained by water rights. Moreover, the fact that it is now beyond doubt that "[o]ne of the major purposes of the projects was containment of maximum salinity intrusion into the Delta ... [b]y storing waters during periods of heavy flow and releasing water during times of low flow," (*Racanelli, supra*, 182 Cal.App.3d, at 107), [17] necessarily means that water quality objectives are not limited to the quality that would be available from "natural flows." The fact that the projects store and release water to meet water quality objectives does not "trigger" an obligation for someone directly or indirectly benefited thereby to compensate the projects.

For the reasons set forth above, CCWD respectfully asserts, first, that additional studies concerning the southern Delta agricultural objectives, if any are undertaken, should be closely coordinated with other on-going studies and should analyze and present the water quality impacts elsewhere in the Delta that would result from each proposed alternative. Second, as explained in detail above, federal and state anti-degradation policies seriously constrain, if not outright prohibit, the relaxation of the southern Delta water quality objectives. Third, the Board should reject the arguments presented by Kern County Water Agency that "naturally occurring water quality" or "natural flow" limit permissible water quality objectives and that each project's obligations cannot exceed "mitigating their impacts"; as was explained above, existing caselaw precludes each of these arguments.

Yours Very Truly,

Carl P. A. Nelson

Carl P. A. Nelson

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16 See e.g., Racanelli *supra*, 182 Cal.App.3d, at 117 (notwithstanding the *Antioch* case, "existing constitutional and legislative authorities encompass the Board's obligation to protect the quality of the Delta waters from saltwater intrusion").

17 See also *Racanelli, supra*, 182 Cal.App.3d, at 135-136 (rejecting the United States' argument that salinity control was merely "incidental" and concluding instead that that "salinity control was an integral part of the announced congressional purposes possessing a priority at least equal to that of transport to water-deficient areas").